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C L A I M S

1. Shaped catalyst carrier containing crystalline titania, wherein at least 50 wt% of the crystalline titania is present as brookite and wherein the carrier comprises between 40 and 100 wt% of crystalline titania based on the total weight of the carrier, preferably between 70 and 100 wt%.
2. The carrier of claim 1, wherein at least 60 wt% of the crystalline titania is present as brookite.
3. The carrier of claims 1-2, wherein at most 90 wt% of the crystalline titania is present as brookite, preferably at most 80 wt%.
4. The carrier of any of claims 1-3, wherein the crystalline titania is present as rutile in the range of from 0 to 50 wt%, preferably in the range of from 5 to 30 wt% and wherein the crystalline titania is present as anatase in the range of from 0 to 10 wt%, preferably in the range of from 0 to 5 wt%.
5. The carrier of any of claims 1-4, wherein the primary particle size of the brookite is in the range of from 10 to 100 nm, preferably of from 20 to 70 nm.
6. The carrier of anyone of claims 1-5, wherein also a binder is present, preferably silica, alumina or a combination of the two of them, and wherein the binder forms in the range of from 0 to 20 wt% of the carrier, preferably in the range of from 0 to 10 wt%.
7. Catalyst or catalyst precursor, comprising a Group VIII metal or a Group VIII metal compound and the carrier of claims 1-6 the Group VIII element preferably being Ru, Fe, Co or Ni, more preferably Co.

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8. Catalyst or catalyst precursor according to claim 7, which furthermore comprises one or more metals or metal compounds of Group IIa, IIIb, IVb, Vb, VIb, preferably manganese and zirconium oxide, or

5 which furthermore comprises one or more metals of Group VIIb and VIII, preferably rhenium, platinum and palladium.

10 9. Process for the preparation of a shaped catalyst carrier according to claims 1-6, by spray-drying, pressing, extruding or otherwise forcing a granular or powdered catalyst material into various shapes, preferably by extrusion.

15 10. Process for the preparation of a catalyst or a catalyst precursor according to anyone of claims 7-9, by impregnation or deposition precipitation of the shaped catalyst carrier according to anyone of claims 1-9 with a solution of one or more metal salts, followed by drying and calcination.

20 11. Process for the preparation of a catalyst or a catalyst precursor according to claim 7 or 8, comprising:
(a) mixing (1) titania in which at least 50 wt% of the crystalline titania is present as brookite, (2) a liquid, and (3) a Group VIII containing compound, which is at least partially insoluble in the amount of liquid used, to form a mixture,

25 (b) shaping and drying of the mixture thus-obtained, and
(c) calcination of the mixture thus-obtained.

30 12. Process according to claim 11, wherein the Group VIII containing compound is a metallic cobalt containing compound, a cobalt hydroxide containing compound or a cobalt oxide, preferably a Co(OH)_2 or a Co_3O_4 containing compound, and wherein the cobalt containing compound further comprises a Group IVb and/or a Group VIIb

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compound, preferably a zirconium, manganese or rhenium compound.

13. An activated catalyst suitable for the production of hydrocarbons obtained by reduction with hydrogen at elevated temperature of a catalyst or a catalyst precursor according to claim 7 or 8.

5 14. Process for the preparation of hydrocarbons comprising contacting a mixture of carbon monoxide and hydrogen with a catalyst according to claim 13.

10 15. Process for the preparation of middle distillate products by hydroisomerisation/hydrocracking of the hydrocarbon product as obtained in the process of claim 14.